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ABSTRACT

The Trilingual Education Learning Environment (TELE) is a basic bilingual instruction program designed to enhance academic and linguistic skills of students with limited English proficiency, and provide supportive services for program participants. This report describes the program as it was implemented during the 1980-81 school year, for third to ninth grade students of Hispanic and Italian background. The program description includes goals, demographic context, participant characteristics, program organization, staffing and activities, and evaluation. Results of evaluation indicate that significant gains were achieved in reading, native language arts, and English; and that attendance rates were mostly higher for the program than for the schools in which TELE programs were located. Recommendations for program improvement are presented. (MJL)

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FINAL EVALUATION REPORT

E.S.E.A. TITLE VII

Grant Number: G007804190

Project Number: 5001-42-17601

TRILINGUAL EDUCATION

LEARNING ENVIRONMENT

1980-1981

Director:
Rosa Escoto-Haughom

UD 022 609

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TRILINGUAL EDUCATION LEARNING ENVIRONMENT

Program Location:	131 Livingston Street Brooklyn, New York 11201
Year of Operation:	1980-1981, third year of a four-year cycle
Target Population:	900 Hispanic and 300 Italian students in Grades 3 to 9
Target Languages:	Spanish, Italian
Program Director:	Rosa Escoto-Haughom

I. INTRODUCTION

In the 1980-81 school year, the Trilingual Education Learning Environment program (TELE) was in its third year of operation. The program was initially funded in 1978 for a four-year period under the provisions of the Elementary and Secondary Education Act-Title VII, more popularly known as the Bilingual Education Act. Under this act, TELE was categorized as a basic bilingual instructional program with a focus on providing training to teacher interns or newly-placed teachers who had been assigned to bilingual classrooms.

As a program serving a disadvantaged bilingual student population, TELE was a participating program within the Office of Bilingual Education. This office is the New York City Board of Education's unit designated to provide direct and supportive services to public schools with students of limited English proficiency (LEP).

The program's primary goal has not changed since 1978, and remains the enhancement of the academic and linguistic skills of participating LEP students. The program has sought to accomplish this goal through a staff devel-

opment program designed to both upgrade the teaching skills of teacher interns and also advance them professionally.

During the 1980-81 school year, the TELE program offered bilingual instruction and supportive services to 900 Hispanic and 300 Italian LEP students in grades 3 to 9. Student eligibility was principally determined by their score on the Language Assessment Battery (LAB), and also the fact that these students had been designated as Title I eligible students by their schools.

Program personnel, consisting of five professionals, provided 40 teacher interns (30 Spanish and 10 Italian) with a comprehensive program of on-site training and supervision, in-service workshops, and also individualized assistance in the classrooms. Additionally, teacher interns were provided college course work at City College in Manhattan. The college work was geared toward a master's degree in education, with a specialization in bilingual education. All training activities were designed to develop the teaching and management skills of the interns as well as to improve their skills in the use of curricula and materials for bilingual education. These activities were coordinated between program staff and the personnel in the Office of Bilingual Education, school districts, and City College. The TELE teacher interns worked at thirteen schools in five community school districts (C.S.D.) in the boroughs of Manhattan, Bronx, Brooklyn, and Queens. Through this coordinated effort, curricula and materials were revised and developed, and parents were provided workshops and orientation sessions.

The purposes of this report are the following:

1) to describe program context, components, participants, and activities;

2) to report student achievement data;

3) to analyze and interpret program and student achievement data;

4) to suggest recommendations for possible improvement.

II. PROGRAM GOALS AND OBJECTIVES

The ultimate goal of the program is to improve the academic performance and linguistic proficiency of Hispanic and Italian LEP students in English. Its instrumental goal is to develop a comprehensive on-site, in-service training and supervision program to be implemented by effective instructional and support services personnel trained in the area of specialization required by the target population. Further, it aims at the development of necessary curricula and materials for use by instructional personnel and students, as well as the involvement of parents in the educational process of their children.

Another goal of the project was to serve as a link for the articulation between the elementary (feeder schools) and the junior high schools.

PUPIL INSTRUCTIONAL COMPONENT

The broad goals of this component were to provide the following:

1) instruction in all academic subjects in the pupil's dominant language;

2) instructional activities and skill development in the pupil's dominant language;

3) instruction in American history and culture;

4) instruction and activities in Hispanic and Italian history and culture;

5) instruction in English as a second language; and

6) the development of activities for the awarenesss of career education goals.

The following specific objectives were addressed by this component:

1) to measure reading achievement in English by pre- and post-test using the Interamerican Series, Test of Reading, Levels R-1 to RN-3;

2) to measure reading achievement in Spanish by pre- and post-tests using the Interamerican Series, Prueba de Lectura, Levels HG-1 to LN-3;

3) to measure student growth in reading in Italian and in knowledge of Italian culture by pre- and post-tests.

TEACHER TRAINING COMPONENT

This evaluation component was designed to:

1) measure outcomes of training by using a Bilingual Teacher Self-Evaluation Questionnaire;

2) measure effectiveness of teacher training on the basis of scores of "average" and above as indicated by teacher self-evaluations and resource teachers' evaluations of teacher performance.

III. DEMOGRAPHIC CONTEXT OF PROGRAM SITES

COMMUNITY SCHOOL DISTRICT PROFILES

The thirty participating teachers in the TELE program were assigned to thirteen schools in five community school districts throughout New York City.

For the most part, the school districts involved in the program had similar characteristics in relation to their ethnic and socio-economic compositions. The exception to this was C.S.D. 24 where there was a large Italian population. Community School District 32 also had a large Italian population, but the greater influx of Italian immigrants was to the District 24 area where the TELE program targeted this language group for services. The population of the general areas involved is reflected in the school and target population for the program.

The following are brief ethnic profiles on each of the school districts in the TELE program.

Community School District 3 (Manhattan)

Community School District 3 consists of a multi-cultural and multi-ethnic population, with a mixture of white, black, Haitian/French- and Spanish-speaking residents. The black and Spanish-speaking predominate. The Hispanic population also has its diversity of population, including students from Puerto Rico, the Dominican Republic, and other South American countries. The quality of education varies from country to country, and students may enter the U.S. school system with little or no formal education, or superior educational experiences. All, however, face at least some difficulties adjusting to an all-English school environment.

According to ethnic profiles for 1980, the population of C.S.D. 3 was 47.3 percent black, 38.8 percent Hispanic, 11.8 percent white, and 2.0 percent Oriental.

Community School District 6 (Manhattan)

This district also contains a varied, multi-cultural, and multi-ethnic population. While Spanish-speaking and black residents predominate, there are also numbers of Greek, Oriental, and Russian immigrants, as well as numbers of white families of other backgrounds. C.S.D. 6 also has a diversity of Spanish-speaking students, coming from the Dominican Republic, Puerto Rico, and Cuba. Again, the quality of their educational experiences prior to coming to the United States may vary widely.

Ethnic profiles for this district indicate that in 1980 the district's composition was 20.7 percent black, 72.1 percent Hispanic, 5.5 percent white, and 1.6 percent Oriental.

Community School District 12 (Bronx)

C.S.D. 12, located in the Bronx, is an area primarily of low income black and Hispanic families, most of whom were Puerto Rican during the 1980 school year. According to the ethnic census for this year, the student ethnic composition of C.S.D. 12 was 36.0 percent black, 62.6 percent Hispanic, 1.1 percent white, and 0.3 percent Oriental.

Community School District 24 (Queens)

C.S.D. 24 has continued to experience a rapid growth of population. In addition to numbers of Hispanics, the district has seen a steady influx of Italian immigrant families. This influx was accelerated in 1980 due to a

disasterous earthquake in Italy. In addition, the district has small numbers of Oriental, European, and East Indian students who are limited English proficient, but whose numbers are too small to make feasible a program of instruction in the native language for them.

The ethnic profiles for this district indicate that 10.3 percent of the students are black, 34.1 percent are Hispanic, 44.3 percent are white, and 10.8 percent are Oriental.

Community School District 32 (Brooklyn)

This district consists of a complex population, with a mixture of white, black, Haitian, Italian, and Hispanic families. The Spanish-speaking population is also diverse, although the large majority of the students are from Puerto Rican backgrounds. The Italian students make up a fair percentage of the district's population as well. Within the district, the quality of education for the newly arrived non-English-speaking students varies from minimal to extensive.

The ethnic report for this district indicates that 29.4 percent are black, 65.3 percent are Hispanic, 5.0 percent are white, and 0.4 percent are Oriental.

LIMITED ENGLISH-SPEAKING POPULATION AND DISTRICT SERVICES

Each of the five participating school districts had a high concentration of LEP pupils and rank: first (C.S.D. 6), sixth (C.S.D. 32), eighth (C.S.D. 24), eleventh (C.S.D. 12) and fourteenth (C.S.D. 3) among the 32 community school districts throughout New York City in the enrollment of LEP pupils. Table 1 lists the districts and schools participating in the TELE program, as well as the district enrollment, Hispanic/Italian register, and number of pupils identified as eligible for bilingual instruction under the Consent

Decree Program (see Aspira, et. al., v. Board of Education, et. al.). The table illustrates the distribution of program sites in relation to the number of students eligible for services.

Table 1. Participating community school districts.

District	District Enrollment	Hispanic/Italian Enrollment	Number of Eligible Students	TELE Program School Sites
3M*	11,922	4,425	1,458	JHS 54; PS 165; PS 179
6M*	18,931	13,959	5,791	PS 189; PS 192; JHS 143; PS 98
12B*	13,880	8,693	2,170	IS 84; PS 67; PS 211;
24Q*	25,104	8,316 (Hispanic) 1,165 (Italian)	2,315	PS 81
32K*+	14,698	9,896 (Hispanic) 662 (Italian)	3,746	PS 123; PS 274

The figures above were published by the Office of Bilingual Education, New York City Board of Education-October 31, 1980.

* (M-Manhattan, B-Bronx, Q-Queens, K-Brooklyn)

+ Source: District information, October, 1980.

Each of the five school districts had a varied number of T.E.L.E. bilingual classes; however, each had a fully developed, sequential (throughout the grades) bilingual program operated independently by the district. In each school the TELE teacher occupied a grade from 3 through 9.

A fully developed bilingual program was considered to be one consisting of self-contained classrooms, and an administrative unit at the district level with a program director or coordinator, and support services personnel,

such as teacher trainers and counselors. Funding for these local programs was generally provided by tax levy and federal funds. In most cases, the administrative positions and resource personnel were supported by sources such as Title VII, or other federal reimbursable programs. The instructional components were generally funded by tax levy. In all cases, funding was achieved by an integration of federal, state, and local funds targeted for bilingual education.

PARTICIPATING SCHOOL PROFILE

In nine of the thirteen schools in the TELE program, the Hispanic enrollment ranged from 70 to 89 percent of the schools' total enrollment. In two schools the Hispanic pupil enrollment represented approximately 40 percent of the school register. At P.S. 81 in C.S.D. 24, where one of the two schools of the Italian component of the TELE program was implemented, the number of Italian LEP pupils was 274. The percent of Italian students at P.S. 81 represented 25 percent of this school's total enrollment. At P.S. 123 in C.S.D. 32, the other Italian site, the percent of Italians in the school was roughly 13 percent. Of the approximately 190 Italians, 92 were of limited English proficiency.

The participating schools in the TELE program were typical of many urban schools with a concentration of low income limited English speaking youngsters. Although the extent and range of economic conditions of the student participants in the TELE program are not statistically illustrated here, published figures for 1980 indicate that, of the ten elementary schools in the TELE program, nine ranked from 510 to 627 among the 630 elementary schools ranked according to reading achievement (Pupil Reading Achievement, December 1980,

Office of Student Information Services, NYC Board of Education). Two of the three intermediate and junior high schools also ranked very low among the 182 schools so ranked the same year.

It can be concluded from reviewing the reading scores of pupils enrolled in the various participating schools that the requirement for selecting those students and schools most in need has been met. The program served schools of the lowest socio-economic levels.

PROFILE OF PARTICIPATING TEACHERS

The 25 Spanish/English and 5 Italian/English bilingual teachers who participated in the TELE program were mostly new to the New York City school system. For the most part they were individuals who wanted to become bilingual teachers, but lacked the student teaching experience normally provided within college programs for teacher candidates. They also lacked required New York City Board of Education licenses.

The program addressed these two initial needs of the interns. It provided an entry to a teaching job as a bilingual teacher within one of the program districts under a special bilingual teacher intern license granted for a period of one year by the Board of Education. The program then attempted to rapidly engage the intern in skills training through its staff development activities and college master's degree program.

In contrast, and as noted in the previous year's final evaluation report, the Italian bilingual teachers were individuals who were already teaching in the New York City school system and in many cases had already received their master's degrees. In 1980 this fact continued to require the program to adapt its goals and activities to meet the needs of these participants. Most of the

Italian bilingual teachers were previously licensed at the secondary school level and had recently been recertified as bilingual common branch teachers. And, although they held master's degrees, they continued to be in need of specific training in bilingual education and in common branch areas.

IV. CHARACTERISTICS OF THE TARGET POPULATION

LANGUAGE

Of the 1,2CO pupils participating in the TELE program, 96.2 percent did not speak English as their primary language. These were divided among 830 Spanish speakers (77.3 percent) and 203 Italian speakers (18.9 percent). Forty-one students spoke English as their primary language, and language dominance was not reported for 12 pupils.

ENROLLMENT

The 1,200 students participating in the TELE program were enrolled in grades 3 through 9 in ten elementary, one intermediate, and two junior high schools. The distribution of student participants by site in relation to the total program enrollment is illustrated in Table 2 below.

Table 2. Number and percentages of pupils in the TELE program at each school.

C.S.D.	School	N	Percentage
3	54	197	18.1
12	67	28	2.6
24	81	127	11.7
12	84	48	4.4
6	98	129	11.9
32	123	150	13.8
6	143	25	2.3
3	165	66	6.1
3	179	25	2.3
6	189	91	8.4
6	192	132	12.3
12	211	35	3.2
32	274	33	3.0
		1086	100.0

Although the program included students from the third to the ninth grades, the majority of the students were in the elementary grades, with most pupil participants enrolled in the fourth and six grades. The distribution of students by grade levels is outlined in Table 3 below.

Table 3. Number and percentage of pupils in the TELE program by grade levels.

Grade	N	Percentage
3	198	18.2
4	261	24.0
5	151	13.9
6	252	23.2
7	67	6.2
8	82	7.6
9	71	6.5
Not Reported	4	0.4
	1086	

COUNTRY OF FAMILY ORIGIN

As mentioned previously in the profiles of the five school districts, ethnic diversity is rather broad. This diversity is evident among the student participants of the TELE program. Over 90 percent of the participants' families hailed from foreign countries or Puerto Rico. The largest groups were from the Dominican Republic, Puerto Rico, and Italy. Table 4 lists the countries of family origin.

Table 4. Country of family origin.

Country	N	Percentage
Dominican Republic	422	38.9
Puerto Rico	249	22.9
Italy	206	19.0
United States	34	3.1
Ecuador	30	2.8
Central America	42	3.8
South America	19	2.1
Other Caribbean	9	.8
European	5	.5
Not Reported	70	6.4
	1086	100.0

STUDENTS' COUNTRY OF BIRTH

Over half of the students in the program were born outside the United States. Of those born abroad, most were born in either the Dominican Republic, Puerto Rico, or Italy (see Table 5).

As illustrated in Table 6, the majority of the third- and fourth-grade students were born in the United States, but the majority of the students in the fifth to ninth grades were born abroad. As the grade increases, the proportion of students born (and educated) outside the United States increases. Therefore, the nature of these students' needs and the measures undertaken to address these needs may well change with grade.

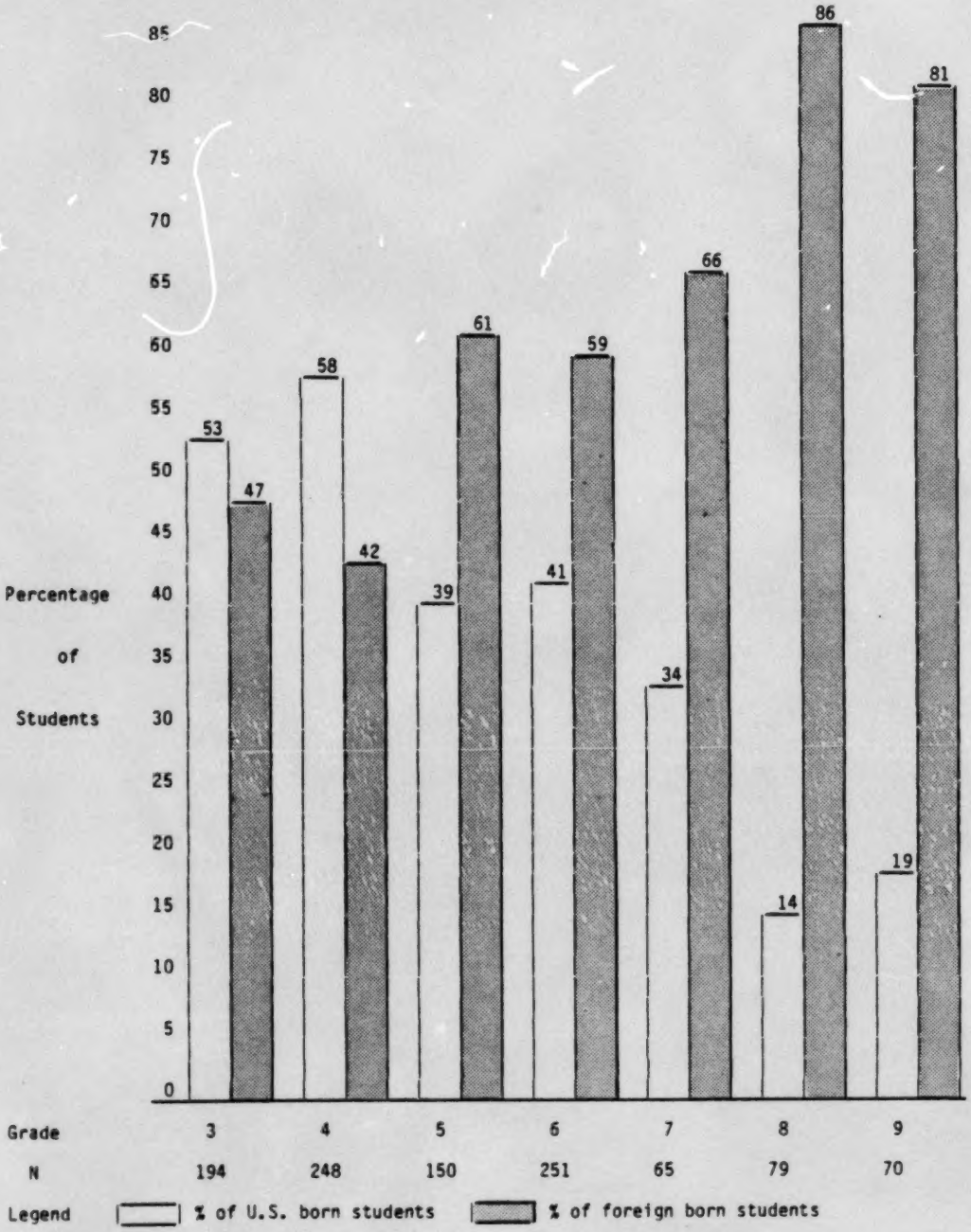
Table 5. Country of birth of program students.

Country	N	Percentage
United States	459	42.3
Dominican Republic	300	27.6
Puerto Rico	121	11.1
Italy	79	7.3
Eucador	25	2.3
Central America	38	3.5
South America	20	1.9
Other Caribbean	9	.9
European	8	.7
Other	1	.1
Not Reported	26	2.4
	1086	

.Over half of the students in the TELE program originated outside the United States.

.The majority of these students came from the Dominican Republic.

Table 6. Student's country of birth by grade.



EDUCATIONAL BACKGROUND OF PROGRAM STUDENTS

As illustrated in Table 7, both the percentage of students educated in New York City since kindergarten or first grade and the percentage of students educated bilingually since kindergarten or first grade decline with the increase in grade. For all grades, the percentage educated in New York City since kindergarten or first grade is higher than the percentage educated bilingually, implying that some students were placed in a bilingual program after first going through placement in an all-English environment. It also appears that as students progress through school, they are mainstreamed.

Table 7. Educational background of program students.

Grade	% educated in NYC schools since k or 1st grade	% educated bilingually since k or 1st grade
3	71.5	52.8
4	64.8	50.0
5	57.1	43.6
6	57.3	34.4
7	43.9	23.8
8	17.8	16.5
9	2.9	0.0

V. PROGRAM ORGANIZATION AND PERSONNEL

THE OFFICE OF BILINGUAL EDUCATION (O.B.E.)

The New York City Board of Education's Office of Bilingual Education is an administrative unit within the Board of Education. This unit consists of approximately 150 pedagogues and nonpedagogues engaged in numerous support service activities in the area of bilingual instruction. The organization of O.B.E. is illustrated on the following page (Chart 1).

As a staff development and instructional services program TELE is part of the Center for Staff Development and Instructional Support Services. This center's major focus within O.B.E. is to provide training to individuals involved in the teaching of limited English speaking children in the city school system. Seven distinct training programs are included within this center. Each of these programs has a particular programmatic purpose as well as a role within the center's overall staff training activities and O.B.E. goals. As part of the Center for Staff Development, then, the director of the TELE program reports to the director of the center. The organization of the TELE project is illustrated in Chart 2.

TRILINGUAL EDUCATION LEARNING ENVIRONMENT

The following were the full-time staff positions in the TELE program and the responsibilities of each:

The director was responsible for the overall administration, coordination, and supervision of the program and each of its components. She functioned as program liaison with city, state, and federal officials and program evaluators in the administration of the program. The director has been in the position

Chart 1. Organizational Chart: Office of Bilingual Education.

1980-1981

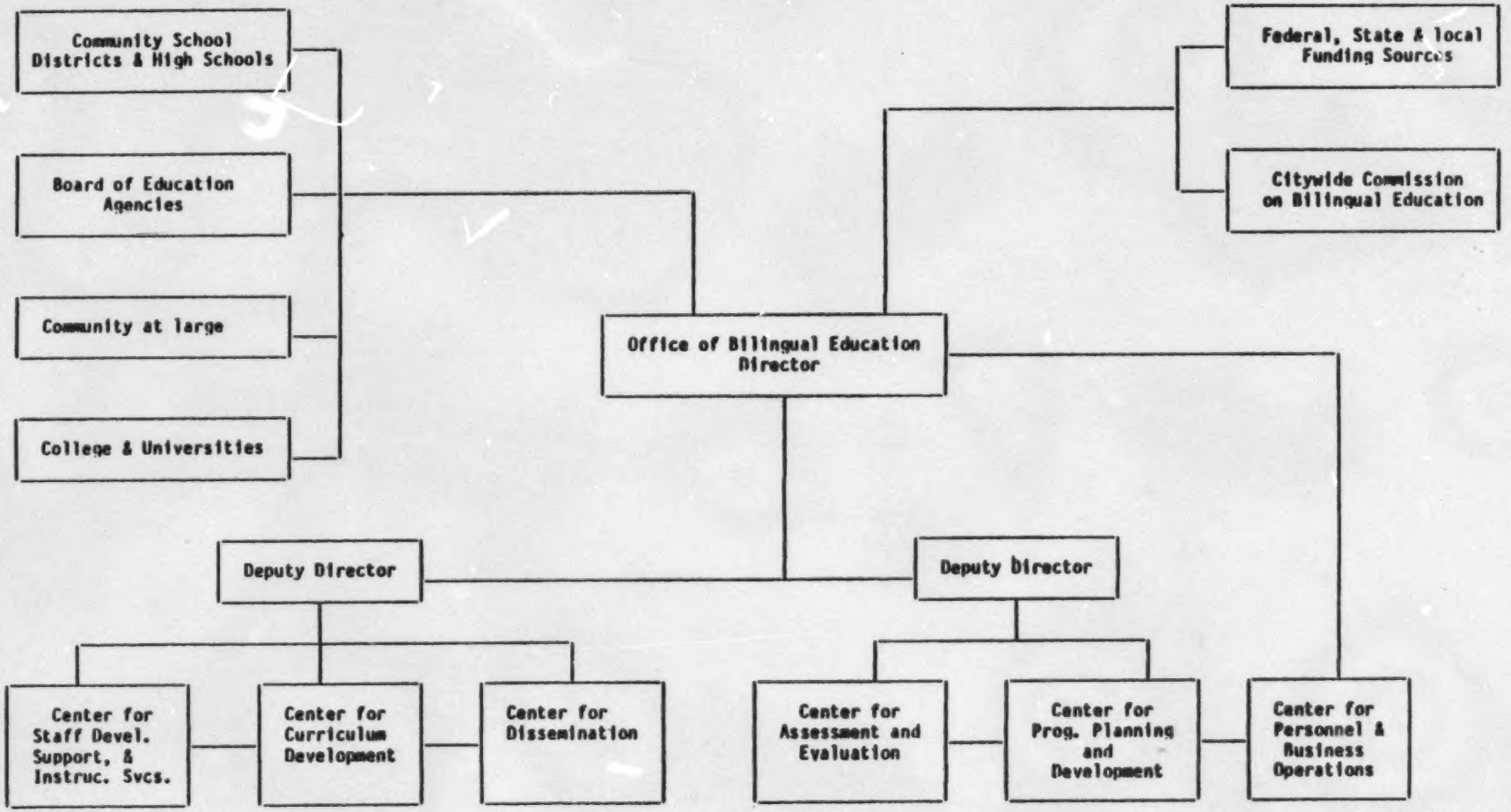
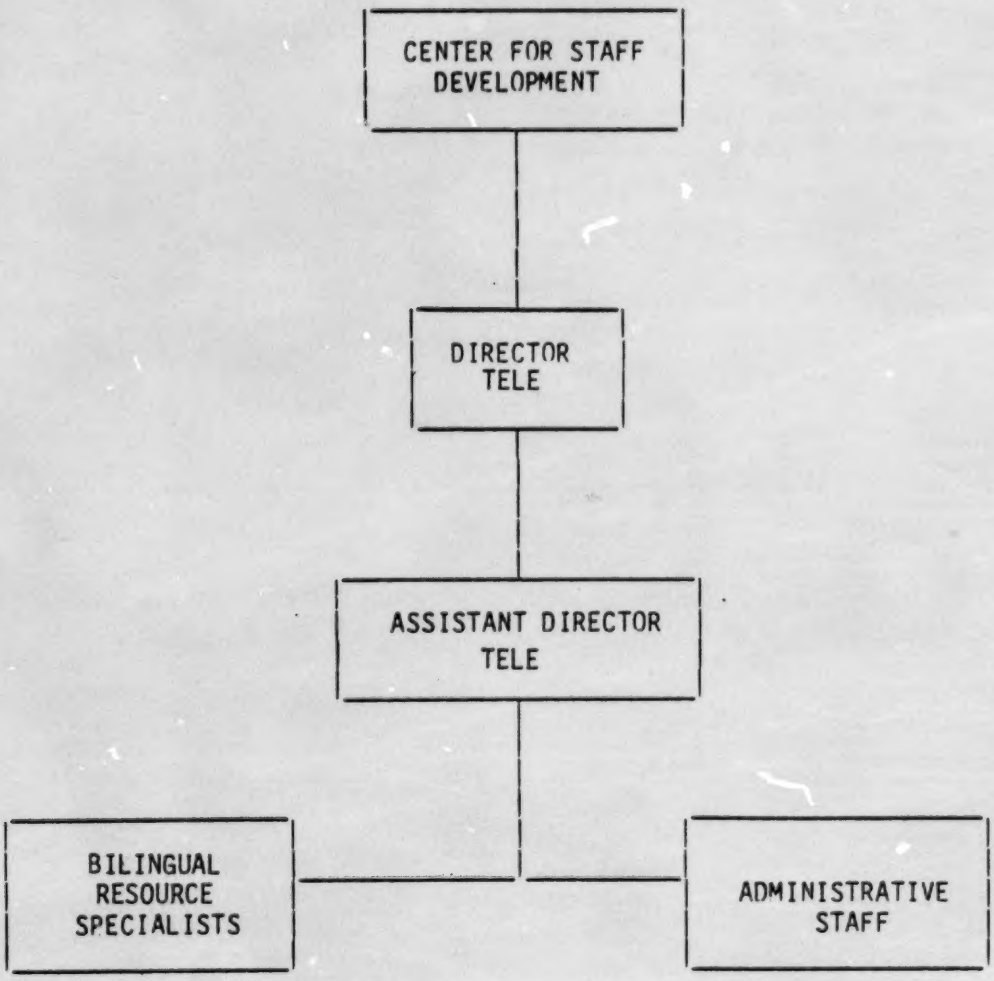

Community School Districts & High Schools
Board of Education Agencies
Community at large
College & Universities
Federal, State & local Funding Sources
Citywide Commission on Bilingual Education
Office of Bilingual Education Director
Deputy Director
Deputy Director
Center for Staff Devel. Support, & Instruc. Svcs.
Center for Curriculum Development
Center for Dissemination
Center for Assessment and Evaluation
Center for Prog. Planning and Development
Center for Personnel & Business Operations

Chart 2. Organization of the Trilingual Education Learning Environment under the Office of Bilingual Education.



less than two years but has been with the program for seven years. The director holds a New York City teacher license and New York State certification in educational administration and supervision. She has, in addition, nine years of experience in teaching and administration in the New York City school system. She is currently enrolled in a doctoral program in education.

The assistant director is responsible for aiding the director in the coordination of pupil services, in-service training, and parent community activities with participating C.S.D.'s and the college. The assistant acts as liaison between the project and school principals, and also assists in the orientation and supervision of the four bilingual resource specialists. The position of assistant director remained vacant throughout the year.

The program has four bilingual resource specialists. However, one of the resource specialists was on maternity leave throughout the school year, so the program functioned with three resource specialists for most of the school year.

The resource specialists provide training and supervision to the teacher interns through weekly workshops and frequent classroom visits. They serve as resources to teaching in curriculum and instruction in both English and the target language. All of the specialists hold teaching licenses, have a minimum of 5-10 years teaching and administrative experience, and all have earned a minimum of one master's degree in education. All are currently enrolled in graduate programs.

Additional personnel include: a senior clerk who is responsible for the office management and bookkeeping, and a typist who provides secretarial and clerical functions; consultants who provide services in training and test

development; and teachers contracted on an hourly basis to conduct in-service workshops for parents, teachers, and paraprofessionals.

SUPERVISION

The TELE program kept extensive records on the development of each teacher intern. These included ongoing informal assessments of the performance of the teacher interns, as well as formal lesson and general performance evaluations conducted by the bilingual resource specialists.

The resource specialists were required to make daily entries into the log books which were periodically checked by the director. The logs provide documentation of all program activities engaged in by the specialists at their assigned program sites and at headquarters. For example, these logs provide descriptions of the training which individual interns received at their schools. The logs contain information on the teacher intern as well as relevant data on the implementation of the program. Also included were any observations on the school situation which had implications for the functioning of the teacher intern, including school support for bilingual education.

The logs also contained records of all contacts between the resource specialists and site personnel, including interviews, observations, entries describing the classrooms, and every visit made. Records were kept of lessons given, resources distributed, and materials developed. In sum, the logs give a detailed description of the activities of the resource specialists in the schools and at the central office.

INTERORGANIZATIONAL ARTICULATION

The TELE program staff maintained very close and ongoing communications with each school district and school administration. These contacts included

both written and telephone communications and also occasional meetings with school principals and teachers. The project director had visited and was familiar with all the program sites. The bilingual resource specialists, however, were the primary link between the central office and the teacher interns. Approximately 40 percent of the specialists' time was spent at the participating school sites providing supervision, and maintaining channels of communication and cooperation with local schools and school district personnel. Since the training occurred on a weekly basis, each specialist came in contact with his/her assigned interns regularly. In addition, the director was in contact with college instructors (City College of New York) who provided courses within the interns' master's degree program. The director regularly assessed the need for new course content and made recommendations to the college administration.

The TELE program staff also collaborated with other resource and training units within the community school districts, Center for Staff Development, and other agencies involved in providing training workshops and conferences for the bilingual educator. This cooperation took the form of presenting or participating in scheduled workshops and conferences.

VI. PROGRAM ACTIVITIES

The TELE program was designed to include activities in the recruitment of interns, instructional program, training of interns, developing or adapting materials, and enhancing parental involvement.

RECRUITMENT OF TEACHER INTERNS

The screening and orientation of teacher interns reflects an orderly process which usually characterizes programs with well established procedures. When a potential intern applies to the program, the candidate receives an extensive evaluation by the program staff. The candidate's educational characteristics are carefully assessed in an effort to better identify each applicant's strengths and areas of need, and to give an estimate of the candidates potential for success in teaching. As part of the intake procedure, each candidate is asked to complete an interview form and a writing sample. An oral interview is given and a summary becomes part of the candidate's record. Grammar tests are given in English and the target language and each candidate is asked to write a composition in both languages. Background information is collected on the educational history of each applicant, and a resume and college transcripts form part of the applicant's record. All of the above materials are gathered upon application to the program and act as a needs assessment for future training activities.

THE INSTRUCTIONAL COMPONENT

The program's pupil instructional activities provide for the following: instruction in all academic subjects in the pupil's dominant language; instruction in English as a second language; instruction and activities in Hispanic

and Italian history and culture; second culture learning; and the development of activities for the awareness of career education goals.

The schools in the TELE program differed in the number of hours per week that were devoted to instruction in English and in the native language. As illustrated in Table 8 below, a few schools emphasized instruction in English (P.S. 81, 123, 274) and others emphasized instruction in the native language (P.S. 67, 84, 143, 192).

Table 8. Time allocated for instruction by site by language.

School	Hours of Instruction Per Week in English		Hours of Instruction Per Week in the Native Language	
	Mean	SD	Mean	SD
67	11.3	.08	15.0	.14
81	16.5	1.42	10.3	1.35
84	10.5	.15	15.0	0.0
98	11.3	.73	14.8	.33
123	17.7	1.69	11.3	.55
143	9.3	0.0	14.9	.21
165	16.9	1.90	8.7	2.5
189	11.3	.64	15.1	.44
192	13.1	1.89	13.2	3.29
274	18.8	0.0	11.3	.00
Overall	14.4	3.5	12.7	2.68

As illustrated by Table 9, the amounts of instruction in English and in the native language were similar for the elementary grades (3-6). No data were available for grades 7 and 9, but grade 8 showed more native language instruction and less English instruction than the program average. The program average demonstrates that slightly more time (1.7 hours per week) was allotted to English than to native language instruction.

A breakdown of time allotted for language instruction by years of bilingual education (Table 10) shows that students get approximately the same amount of English and native language instruction when they have had one year of bilingual education. However, as the number of years in bilingual education increases, the hours of English per week also increase while the hours of native language instruction decrease until students who have had six years of bilingual education receive 4.4 more hours per week of English than native language instruction.

Table 9. Time allotted for instruction by grade by language.

Grade	N	Hours of Instruction Per Week in English		Hours of Instruction Per Week in the Native Language	
		Mean	SD	Mean	SD
3	192	14.4	2.6	12.2	2.1
4	229	15.4	3.8	12.9	2.1
5	149	13.7	3.3	14.3	3.1
6	250	14.3	3.5	11.9	2.9
8	25	9.3	.0	14.9	.2
Total	845	14.4	3.5	12.7	2.7

Table 10. Time allotted for language instruction by years of bilingual education.*

Years of Bilingual Education	Hours of English Per Week	Hours of Native Language Per Week
1	13.1	13.8
2	13.7	13.3
3	14.5	12.3
4	14.8	12.8
5	15.6	11.9
6	15.5	11.1

*See Appendix for a more detailed breakdown by grade.

TRAINING ACTIVITIES

The scope of the program's teacher training activities has not changed significantly from what was reported in the previous year's final evaluation report. These activities were comprised primarily of workshop sessions, college courses offered by the City College of New York, and on-site training given to individual teachers.

The training workshops provided during the year were essentially geared toward meeting the anticipated needs of both recent teachers in the program as well as the developmental needs of those teachers who had been with the program more than one year.

One example of the workshops for new teachers was a series of thirty-two sessions dealing with classroom management, lesson planning, reading, and other subject areas of the curriculum. These sessions were conducted by the TELE staff and, in addition, served to meet a union contract requirement that new teachers be provided with entry level classroom-related training.

Other workshops for program teachers included a series of human relations workshops focusing on American cultural heritage, community involvement, urbanization, classroom materials, and communication.

On a periodic basis the program would offer training sessions on a smaller scale to address some particular need of its teachers. One such series of short-term workshops involved the preparation of program teachers for an upcoming license examination. The applicants received preparation in writing, reviewed education theories, and focused on bilingual instruction methods.

The TELE teachers continued to enroll for courses at the City College of New York in the college's master's degree program in bilingual elementary education.

A new phase of the college's education program is a secondary bilingual education master's degree program. This addition was welcomed by the TELE teachers working at the intermediate and junior high school levels, and who up to this point had to enroll in courses designed for elementary bilingual school teachers because the college had no secondary education program in bilingual education.

The on-site training and supervision provided by the resource specialist continued to be highly valued by both the teachers and school principals. The focus of this training varied with the needs of both the classroom teachers and the students. The program logs kept by the resource specialist reflect a variety of activities in response to recognized needs in curriculum training and other areas.

MATERIALS DEVELOPMENT AND ADAPTATION

It was mentioned previously that a distinctive feature of the TELE classrooms was the variety of materials available and in use by the teachers and students. This is indicative of a continuing involvement by the classroom teachers in developing materials and also adapting existing commercially-developed materials for their particular mode of instruction. Although this year the program did not specifically conduct intensive training in materials development, it did so in earlier years.

VII. FINDINGS

ASSESSMENT PROCEDURES, INSTRUMENTS, AND FINDINGS

The following section presents the assessment instruments and procedures, and the results of the testing to evaluate student achievement in 1980-1981. Students were assessed in English language development, and growth in their mastery of their native language.

The following are the areas assessed and the instruments used:

English language development of
Spanish-speaking students -- Interamerican Series
Tests of Reading and Number, Level 3, Forms DE and CE
Test of General Ability, Levels 2 and 3, Forms A and B
Test of Reading, Levels 1, 2, 3, and 4, Forms A and B

Spanish language development -- Interamerican Series Prueba de
Lectura y Numero, Level 3, Forms DEs and CEs
Prueba de Habilidad General, Levels 2 and 3, Forms A and B
Prueba de Lectura, Levels I, 2, 3, and 4, Forms A and B

English language development of
Italian-speaking students -- P.S. 81 - California Achievement
Test, Levels 12, 13, 14, and 15, Forms C and D
P.S. 123 - Stanford Achievement Test, Levels RD, GN, BN,
Form A, subtests E, B, and C.

Italian language development -- Program-developed test

Attendance -- School and program records

The following analyses were performed:

On pre/post standardized tests of native language achievement and English language achievement statistical and educational significance are reported:

Statistical significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation alone; i.e. is statistically significant. This analysis does not represent an estimate of how students would have

performed in the absence of the program. No such estimate could be made because of the inapplicability of test norms for this population, and the unavailability of an appropriate comparison group.

Educational significance was determined for each grade level by calculating an "effect size" based on observed summary statistics using the procedure recommended by Cohen.[1] An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units freed of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit of statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful.

Thus, statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the following effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

a difference of 1/5 = .20 = small ES

a difference of 1/2 = .50 = medium ES

a difference of 4/5 = .80 = large ES

Information is provided on the attendance rate of students participating in the bilingual program compared with that of the total school population.

The following pages present student achievement in tabular form.

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[1] Jacob Cohen. Statistical Power Analysis for the Behavioral Sciences (Revised Edition). New York Academic Press, 1977 Chapter 2.

Table 11. English achievement of Spanish-speaking students.

Significance of the difference between pre-test and post-test achievement of Spanish-speaking students on the Interamerican Test of English.

Test	Level	Forms	Grade	N	Pre Mean	SD	Post Mean	SD	Mean Diff. Pre-Post	Corr. Pre/Post	t	df	p	ES
Reading and Number	3	DE/CE		53	42.8	13.9	55.2	21.1	12.47	.90	8.66	52	.001	1.19
			4	11	26.1	8.9	31.6	9.2	5.55	.85	3.73	10	.004	1.12
			5	4	40.3	7.3	43.5	7.9	3.25	.75	1.20	3	NS	.60
			6	38	47.8	11.7	63.3	18.7	15.45	.86	8.96	37	.001	1.45
General Abilities	2	A/B		80	31.8	14.3	40.3	15.5	8.46	.70	6.54	79	.001	.73
			3	20	34.1	8.1	47.2	9.9	13.1	.56	6.82	19	.001	1.52
			4	7	25.1	3.9	36.6	5.9	11.4	.75	7.57	6	.001	2.86
			5	9	35.1	12.7	51.3	19.6	16.2	.27	2.40	8	.05	.80
			6	19	45.2	14.7	45.1	13.0	-.1	.60	-.04	18	NS	-.01
			8	25	20.6	10.3	28.2	13.9	7.6	.96	7.91	24	.001	1.58
General Abilities	3	A/B	7	67	23.2	5.7	42.9	9.8	19.6	.57	9.95	66	.001	1.22
Reading	1	A/B	3	21	55.1	13.7	68.3	11.0	13.3	.75	6.75	20	.001	1.47
			4	5	58.8	17.6	67.0	8.9	8.2	.74	1.46	4	NS	.65

Table 11.
(continued)

Test	Level	Forms	Grade	N	Pre Mean	SD	Post Mean	SD	Means Diff. Pre-Post	Corr. Pre/Post	t	df	p	ES
Reading	2	A/B		241	43.7	19.4	63.4	22.2	19.7	.73	19.6	240	.001	1.26
			3	81	41.8	14.2	66.0	19.2	24.2	.71	16.0	80	.001	1.78
			4	91	38.4	16.0	60.0	20.6	21.7	.63	12.7	90	.001	1.33
			5	45	47.1	21.8	58.5	24.3	11.4	.85	6.0	44	.001	.89
Reading	3	A/B		97	43.7	26.4	61.2	33.0	17.5	.88	10.74	96	.001	1.09
			4	26	28.2	13.5	40.8	16.5	12.6	.89	8.32	25	.001	1.63
			6	71	49.3	27.8	68.7	34.3	19.4	.85	9.10	70	.001	1.08
Reading	4	A/B		124	47.1	16.3	57.4	14.6	10.24	.49	7.26	123	.001	.65
			8	56	39.2	15.0	55.4	16.2	16.2	.41	7.07	55	.001	.94
			9	67	54.2	13.6	59.0	12.8	4.8	.60	3.32	66	.001	.41

.Twenty-two of the twenty-three comparisons showed gains between pre- and post-tests. One comparison showed a decline of 0.1.

.Twenty of the gains were statistically significant.

.Fourteen of the gains were of very large educational significance (greater than 1.0) with one exceeding 2.0.

.Three of the gains were of large educational significance (between .8 and 1.0), four were of medium educational significance (between .5 and .8), and one was of low educational significance (between .2 and .5). The one case where there was a decline was not of any educational significance (-.01).

Table 12. Native language achievement of Spanish-speaking students.

Significance of the difference between pre-test and post-test achievement of Spanish-speaking students on the Interamerican Series.

Test	Level	Forms	Grade	N	Pre Mean	SD	Post Mean	SD	Means Diff. Pre-Post	Corr. Pre/Post	t	df	p	ES
Lectura y Numero	3	DEs/CEs		70	41.5	11.2	46.0	16.1	4.49	.69	3.2	69	.002	.38
(Reading and Number)			4	14	32.6	8.2	36.9	4.4	4.21	.39	2.1	13	.05	.56
			5	19	41.6	11.1	41.9	6.9	.32	.62	.16	18	NS	.04
			6	36	45.6	9.9	52.3	19.6	6.8	.75	2.9	35	.006	.48
Habilidad General	2	A/B		19	40.1	13.8	48.5	15.0	8.4	.94	7.2	18	.001	1.65
(General Abilities)			3	4	35.5	7.2	50.0	8.3	14.0	.66	4.3	3	.02	2.15
			6	14	40.6	15.4	47.1	16.6	6.6	.98	7.11	13	.001	1.90
Habilidad General	3	A/B		66	36.6	12.8	59.4	15.1	22.8	.83	21.9	65	.001	2.70
(General Abilities)			7	65	36.1	12.3	59.0	14.8	22.8	.82	21.7	64	.001	2.69
Lectura	1	A/B		58	45.6	19.5	64.7	15.0	19.1	.50	8.23	57	.001	1.08
(Reading)			3	17	54.8	16.7	68.1	11.5	13.3	.66	4.37	16	.001	1.06
			4	27	35.4	14.6	60.8	16.0	25.4	.20	6.80	26	.001	1.31

Table 12.
(continued)

Test	Level	Forms	Grade	N	Pre Mean	SD	Post Mean	SD	Means Diff. Pre-Post	Corr. Pre/Post	t	df	p	ES
Lectura	2	A/B		176	56.5	19.4	71.2	20.6	14.7	.71	12.7	175	.001	.96
(Reading)			3	82	58.6	16.2	73.7	17.2	15.1	.62	9.4	81	.001	1.04
			4	60	47.8	17.7	62.8	20.2	15.0	.78	9.0	59	.001	1.16
			5	16	68.9	22.4	81.8	24.3	12.9	.54	2.3	15	.04	.58
			6	14	68.6	24.9	84.4	23.0	15.9	.59	2.7	13	.02	.72
Lectura	3	A/B		156	40.6	16.6	57.4	21.3	16.8	.72	14.15	156	.001	1.16
(Reading)			4	35	35.9	15.0	44.7	16.9	8.8	.93	8.4	34	.001	1.42
			5	19	56.7	16.0	71.2	17.1	14.4	.95	11.5	18	.001	2.64
			6	80	39.2	15.5	62.5	21.4	23.3	.58	11.8	79	.001	1.32
			8	17	41.4	17.9	50.4	18.7	8.9	.92	5.1	16	.001	1.24
Lectura	4	A/B		113	51.1	15.5	63.8	14.3	12.8	.66	10.9	112	.001	1.03
(Reading)			8	56	49.2	15.2	64.1	13.7	14.9	.56	8.2	55	.001	1.10
			9	56	53.5	15.3	63.6	15.1	10.1	.78	7.5	55	.001	1.00

.All twenty-five comparisons showed gains between pre- and post-tests.

.Twenty-four of the gains were statistically significant.

.Eighteen of the gains were of very large educational significance (greater than 1.0) with four exceeding 2.0.

.One gain was of large educational significance (.8 to 1.0), four were of medium educational significance (.5 to .8), one was of low educational significance (.2 to .5), and one was not educationally significant (.04).

Table 13. English achievement of Italian-speaking students at P.S. 81.

Significance of the difference between pre-test and post-test achievement of Italian-speaking students on the California Achievement Test.

Level of Pre-test	Level of Post-test	N	Pre Mean	Pre SD	Post Mean	Post SD	Mean Diff. Pre-Post	Corr. Pre-Post	t	p	ES
12	13	31	23.9	6.7	43.6	9.0	19.7	.69	16.9	.001	3.04
13	14	26	35.2	9.7	46.6	9.0	11.4	.51	6.28	.001	1.23
14	15	16	42.9	7.9	53.1	8.9	10.3	.69	6.13	.001	1.53

.All three groups showed statistically significant gains between pre-test and post-test ranging from 10.3 to 19.7.

.All gains were of very large educational significance.

Table 14. English achievement of Italian-speaking students at P.S. 123.

Significance of the difference between pre-test and post-test achievement of Italian-speaking students on the Stanford Achievement Test.

Level	Grade	N	Pre-Test X	Pre-Test SD	Post-Test X	Post-Test SD	Difference	Corr. Pre/Post	t	p	ES
RD		20	125.11	26.42	140.95	31.70	15.83	.85	4.30	.001	.96
	3	18	125.19	28.06	141.00	33.19	15.81	.85	3.89	.001	.92
	4	2	124.5	7.78	140.5	4.95	16.00	-1.00	1.78	NS	1.26
GN		37	80.38	26.70	74.22	26.31	13.84	.84	5.55	.001	.92
	4	14	79.42	26.61	95.36	26.01	15.93	.82	3.72	.002	.99
	5	23	80.96	27.66	93.52	26.33	12.56	.85	4.06	.001	.85
BN	6	18	70.81	22.94	85.18	18.86	14.38	.87	5.60	.001	1.32

.All groups showed gains of large educational significance ranging from 12.56 to 16.00.

.All but one of the group gains were statistically significant except the fourth graders taking the red level due to the small size of the sample (N=2).

Table 15. Native language achievement of Italian-speaking students.

Significance of the difference between pre-test and post-test achievement of Italian-speaking students on a program-developed test of the native language.

School	Grade	N	Pre-Test Mean	Pre-Test SD	Post-Test Mean	Post-Test SD	Mean Difference	Corr. Pre/Post	t	p	ES
81	all	125	15.8	6.5	19.8	6.5	4.0	.97	28.36	.001	2.54
	3	36	23.4	3.1	27.3	2.1	3.9	.90	16.08	.001	2.68
	4	32	12.1	2.8	16.0	2.6	3.9	.92	20.71	.001	3.66
	5	26	15.2	7.4	20.5	7.4	5.3	.98	17.91	.001	3.51
	6	31	11.5	2.0	14.4	.9	2.9	.81	11.99	.001	2.15
123	all	70	15.5	4.6	19.5	5.4	4.0	.64	7.76	.001	.93
	3	20	14.6	4.9	20.4	5.6	5.8	.84	8.40	.001	1.88
	4	15	15.0	5.5	20.6	5.9	5.6	.14	2.93	.001	.76
	5	17	19.3	3.6	22.8	4.0	3.5	.86	7.15	.001	1.73
	6	18	13.3	1.8	14.5	.9	1.2	.84	4.30	.001	1.01
Both	all	195	15.7	5.9	19.7	6.1	4.0	.89	19.44	.001	1.39

.All grades at each school showed significant gains between pre-test and post-test.

.The average gain for all students was 4.0, which was of very large educational significance.

Table 16. Significance of the difference between attendance percentages of program students and the overall attendance percentages of the participating schools.

School	Overall Attendance	Program Attendance	N	Standard Deviation	Percentage Difference	t	p
54	82.5	92.3	122	8.0	-9.8	13.53	.001
67	85.0	87.6	25	6.0	-2.6	2.17	.025
81	91.1	93.2	118	4.5	-2.1	5.07	.001
84	90.4	92.3	48	12.5	-.9	1.05	NS
98	88.2	93.5	89	9.5	-5.3	5.26	.001
123	87.7	87.7	136	17.1	0	0	
143	83.0	78.0	25	23.3	5.0	-1.07	NS
165	85.0	90.1	58	7.2	-5.1	5.39	.001
179	86.5	96.0	24	2.5	-9.5	18.62	.001
189	89.1	93.2	87	5.2	-4.1	7.35	.001
192	88.1	93.2	119	8.5	-5.1	6.55	.001
211	85.8	89.6	27	8.4	-3.8	2.35	.025
274	88.2	81.0	28	22.0	-7.2	-.33	NS
TELE		91.0	906	11.5			

.Eleven of the thirteen program sites in the TELE program had attendance rates which were higher than the attendance rates in their respective schools. Of these, in nine cases the difference was statistically significant in favor of the program.

SUMMARY OF FINDINGS

English Language Achievement

To determine the English language achievement of Spanish-speaking program participants, students were tested with the Interamerican Series: Tests of Reading and Number, Test of General Ability, and Test of Reading. Students' results were grouped by test, test level, and grade. Twenty-three comparisons of pre- and post-test scores were made. Of these, 22 groups demonstrated gains in their post-test scores, of which 20 were determined to be statistically significant. Fourteen groups made gains which were of very large educational significance, and only one group of nineteen students (sixth graders tested on Level 2, General Ability) showed a decline in test scores.

Italian-speaking program students at P.S. 81 were tested with the California Achievement Test. All groups of students demonstrated statistically significant gains which were determined to be of very large educational significance.

At P.S. 123, Italian-speaking program students were tested with the Stanford Achievement Test. All groups of students showed gains of large educational significance. All of the group gains were statistically significant except for that of the two fourth-grade students on the "red" level.

Native Language Achievement

The Interamerican Series: Prueba de Lectura y Numero, Prueba de Habilidad General, and the Prueba de Lectura were used to determine the native language achievement of Spanish-speaking program students. Of the 25 comparisons made of pre- and post-test scores, 24 of the group reported made gains which were determined to be statistically significant. The gains made by 18 groups were judged to be of very large educational significance.

Italian-speaking program students were tested with program-developed instruments. All grades at both schools (P.S. 81 and 123) demonstrated statistically significant gains of very large educational significance between pre- and post-tests.

Attendance

Eleven of the thirteen sites in the TELE program had attendance rates which were higher than the attendance rates at their respective schools. In nine of these cases the difference was statistically significant in favor of the program.

VIII. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The evaluator visited seven program sites to observe the implementation of the instructional program activities. The schools visited included five elementary and two junior high schools. In each of the elementary classes observed, the evaluator was impressed with the high degree of organization and management skills exhibited by the interns in the presentation of lessons and in orchestrating the involvement of students in small group activities. A distinctive feature of these classrooms was their richness in instructional materials, not necessarily commercial materials but items which had been prepared by the teachers and paraprofessionals. Although most of the school buildings visited were old structures and in need of repair, every elementary classroom visited was brightly decorated and exhibited children's work.

In addition to observing the interns teach, the evaluator interviewed eight teacher interns, three school principals, and two district level bilingual program directors. The general perception among all those interviewed was that the program's training activities and supportive services had a positive impact on the quality of the instructional activities carried out by the interns. They particularly point out the visits by the bilingual resource specialists as valuable in the orientation of the interns.

In contrast, the program at the junior high school level did not appear as well organized as at the elementary level. The three interns interviewed at this level generally complained that the program's training activities were more geared toward upgrading the skills of elementary school teachers, and that curriculum materials, adequate for LEP pupils at the junior high school level, were needed. In addition, these interns saw the need for bi-

lingual resource specialists with an emphasis on experience and training at the junior high school level.

Despite these complaints, the junior high school interns observed teaching demonstrated the ability to control often unruly students and conduct their planned lessons for the day.

RECOMMENDATIONS

Based upon the observations and interviews conducted, the evaluator makes the following recommendations for program improvement:

1. It is recommended that changes in personnel at the resource specialist level be implemented more rapidly to insure the continuity of program supervision of classroom teachers. These teacher trainers provide a most crucial service in guiding and training new teachers in the program. This year the program was without the services of a resource specialist for almost the entire school year.

2. It is recommended that the program hire a resource specialist with teacher training expertise at the junior high school level. There is a great contrast between program teachers in the elementary schools and those in the junior high schools in the way they conduct their classrooms and in their level of satisfaction with the training and guidance provided by the program. A reason for this may be that all of the resource specialists have primarily been individuals with specializations in elementary classroom training.

IX. APPENDIX

APPENDIX

Time Allotted to Language Instruction by Years of Bilingual Education.

Hours of English instruction and native language instruction for children at each grade who have had one to six years of bilingual education.

Years of Bilingual Instruction	Grade	Hours of English Per Week		Hours of Native Language Per Week	
		$\bar{X}$	SD	$\bar{X}$	SD
1	3	13.1	2.4	13.0	1.9
	4	15.0	3.3	13.0	1.9
	5	12.1	2.9	15.3	2.9
	6	12.6	3.1	13.9	2.0
	8	9.3	0.0	15.0	.2
	(Overall)	(13.1)		(13.8)	
2	3	13.6	2.4	12.9	1.9
	4	15.4	3.2	12.5	1.9
	5	13.0	3.2	14.8	2.7
	6	13.8	3.3	13.2	2.2
	8	9.3	0.0	15.0	.2
	(Overall)	(13.7)		(13.3)	
3	3	14.9	2.7	11.6	2.6
	4	14.4	3.5	13.2	2.1
	5	14.2	3.3	13.1	2.7
	6	14.2	3.5	11.9	2.0
	8	9.3	0.0	15.0	2.0
	(Overall)	(14.5)		(12.3)	
4	3	15.4	2.6	11.9	1.6
	4	15.4	3.9	12.9	2.4
	5	12.6	2.5	15.1	3.2
	6	14.3	3.7	11.3	2.6
	8	9.3	0.0	15.0	0.0
	(Overall)	(14.8)		(12.8)	

Years of Bilingual Instruction	Grade	Hours of English Per Week		Hours of Native Language Per Week	
		$\bar{X}$	SD	$\bar{X}$	SD
5	3	15.0	2.0	11.7	1.3
	4	17.4	5.1	13.6	2.0
	5	15.0	3.4	13.1	3.3
	6	15.1	3.5	10.0	2.7
	(Overall)	(15.6)		(11.9)	
6	4	11.3	0.0	15.0	0.0
	5	13.1	3.2	15.2	3.3
	6	16.2	3.0	9.8	2.4
	(Overall)	(15.5)		(11.1)	

- In general, hours of English instruction per week increased with the increase in years of bilingual instruction.

- Conversely, hours of native language instruction per week decreased with the increase in years of bilingual instruction.